

Dr. D. Cover Sheet**Michael Higley-Vance****September 3, 2013**

EDU7002-8	Dr. Donna Rice
Educational Research Methodology	Assignment #3: Characteristics of Research Problems

Assignment: Use the resources in the Required Readings of Section 3 to assemble and discuss the Characteristics of a Research Problem. What constitutes a researchable problem? What are the components of a well formed Statement of Research Problem? What constitutes a reasonable theoretical framework for the need of the study? Length: 5-7 pages. Include 3-5 references.

Per Dr. Rice instructions in Resources Tab: **For Activity 3 “Characteristics of Research Problems” ensure you follow the directions for the assignment and the eight characteristics you are required to point out in the comment feature for Activity 4 are mentioned in a section of your Activity 3 paper.**

1. The statement of the problem is well within 250-300 words
2. Clearly stated general problem
3. The general problem is described in more specific terms and more citations are offered to thoroughly ground all assertions in the literature
4. After presenting the general issue here is the specific focused problem statement using the phrase, “The specific problem is to investigate...”
5. The specific problem the research project will address is identified and validated by more citations.
6. A clear explanation of why this is a research worthy problem includes generous use of citations.
7. Eight to 15 citations were used to validate this brief problem statement.
8. Absolutely avoid one of the most common errors in problem statements (and literature reviews): reporting what previous researchers have done instead of using critically evaluated findings from previous research to demonstrate the existence of a gap in knowledge appropriate to a dissertation. Your problem statement must use sources to show what we know and do not know, not what researchers have done and not done.

For Activity 4 “Draft the Research Problem” ensure you include the eight characteristics as they relate to your problem statement using the comments feature.

Faculty Use Only

Very nice paper on Activity 3, Michael. Good job on including the posted characteristics and expanding on what constitutes a good problem statement. Great use of headings. Do not use direct quotations unless absolutely necessary – reviewers want to see statements in your own words backed up by sources. See additional grammar report for corrections. I like your writing style and can say your submissions are some of the best I have seen!

You will need to point out where the characteristics above occur in your problem statement in the next assignment using the comments feature of Word. For that activity **I do NOT want a 5 to 7 page paper.** I only want the problem statement presented as stated in the sample. Remember stating the specific problem in a research paper is different than stating a problem. You are stating it in a way that indicates what you will research.

Using the example as a guide often students will state the problem as a problem: "Online courses are not developed based on individual learning behaviors and they do not enhance performance." Yes, it is a problem but it is not a research problem. A research problem needs to be phrased in a way that shows what will be investigated: "In designing effective online courses, the specific problem is to investigate how to recognize and understand the learning styles of students (A.Y. Kolb & Kolb, 2005; McCarthy, 2010) and apply that knowledge to develop curriculum that will enhance student performance based on those individual learning behaviors." See the difference?

I have posted directions and a sample in the Resource Tab. If you have not used the comments feature of Word before put "Track Changes" in the help field in your Word program and follow the instructions for inserting comments. Please call me if you do not understand or otherwise need help with any part of these instructions.

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Grading Key

10 Excellent	9 Above Average	8 Adequate	7 Needs Improvement	6 Not Acceptable
25 Excellent	20 Above Average	15 Adequate	10 Needs Improvement	5 Not Acceptable

Content 70%

- 10 Demonstrated a well-developed focus (Introduction)
- 10 Thorough points of development (Listed major points to be covered)
- 10 A logical pattern or organization of discussion ideas and concepts required in activity (used at least two levels of headings)
- 10 Achieved stated learning outcome(s)
- 10 Integrated key concepts and terms from course materials and the eight characteristics that need to be pointed out in Activity 4 – the problem statement.
- 10 Evaluated and applied concepts learned
- 10 Demonstrated learning through use of examples and/or illustrations

10 Supported insights and assertions through research and use of additional outside academic resources

| 10 Met length requirement ([excellent!](#))

10 Ended with a conclusion that summarized paper without adding new information and without repeating introduction

100 Total

Writing 30%

| [23/25](#) Appropriate and precise language

25 Proper use of APA

25 Clear divisions between the writer's voice and the sources used to support claims

| [23/25](#) Consistent use of standard American English in grammar and punctuation

| [96/100](#) Total

Characteristics of Research Problems

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Characteristics of Research Problems

Educational institutions around the world are rooted in the foundation of the quality, fidelity, intensity, and consistency of scholarly research. According to Leedy and Ormrod (2010) research begins with a problem or question. Sound research problem statements describe a problem in a clear and concise way allowing the reader to understand its ultimate purpose, how the research compares to the literature, and why the research is worthy of time and effort. The purpose of this paper is to describe the unique characteristics of a research problem and highlight (a) what determines a researchable problem, (b) the components of a well-formed statement of the problem, and (c) what constitutes a sound framework for the need of the research study.

A Researchable Problem

A good research problem should start with identifying an appropriate question, make a significant contribution, advance the field of study, and require interpretation of collected data (Leedy & Ormrod, 2010). Identifying a worthy problem to research is one of the first steps in the research process and includes observing the world around you, identifying a researchable problem, intensely reviewing related literature, and selecting a problem that has theoretical or

practical significance (Mushtaq, 2012). Problems in need of research can be found in all facets of life experiences; the challenge is finding a scientific problem that has immediate relevance and is worthy of time and effort.

Identifying a Problem. According to Ellis and Levy (2008) most scholars would agree that not every problem is research-worthy and therefore not easy to identify. However, making observations through life experiences and detecting everyday phenomena, which occurs around us, help to identify problems or questions in need of significant study (Leedy & Ormrod, 2010; Jacobs, 2013). Identifying a worthy problem does not happen naturally and can only happen through intense efforts to identify a gap in information or a concept of understanding (Jacobs, 2013, p. 104). Essentially, using a combination of sources and answering specific questions related to the proposed problem help to identify and develop the research problem. These combinations of sources are addressed in this section of the paper.

Reviewing the Literature. The research problem is almost always established through the review of the literature however, there are those who see research problems long before others, though the majority of research questions being asked are problems that are well documented (Leedy & Ormrod, 2010). A review of the literature establishes the appropriateness of the research goals, the type of research to be conducted, and the research questions that should be asked. It is important to thoroughly research the ideas in order to determine if the ideas have previously been proposed. Additionally, how the data is to be analyzed in order to produce the study's conclusions is also formulated from the literature. Effective research is based on past research, knowledge, and worthy contributions to the field.

A review of the literature should build on the latest research of others in the scientific community (Ellis & Levy, 2008; Leedy & Ormrod, 2010; Shengdong, 2011). Conducting a

review of the related literature provides an in-depth knowledge of the topic (Jacobs, 2013). One way to narrow the topic is to combine corresponding and existing ideas to come up with new ways to solve those problems. Most importantly, during the review of the literature learn from the other fields. Often a new technique or method from another field of study can enhance and provide substance to a research worthy problem (Shengdong, 2011). According to Mushtaq, (2012) reviewing the literature “helps to eliminate the duplication of what has been done” (p. 10895) and provides helpful suggestions for further investigation. In addition, continued scholarly discourse on a topic provides the intellectual basis and observational skill set needed to explain certain phenomena. “No other source of information alone contributes in helping to drive research problems to the same extent as doing the literature review” (Jacobs, 2013, p. 105, para. 5).

Theoretical Significance. It is important that the research problem point out how the results of the research can and will influence theoretical practice. It is also important to define related and unusual terms that could be confusing or misleading. The definitions of these terms help to establish a scientific and theoretical frame of reference (Leedy & Ormrod, 2010; Mushtaq, 2012). Variables and limitations to the research must also be discussed and defined along with the assumptions of what is believed to be fact but still unverifiable. The problem statement must describe precisely why it is worth the time and effort for the study to be carried out and a careful development of the research problem helps to justify its worth and theoretical significance (Mushtaq, 2012).

The Statement of the Problem

According to Ellis and Levy (2008) the statement of the problem is one or two sentences that frame the problem the potential study is expected to addresses. Typically the

statement of the problem is derived through the steps taken in finding a researchable problem or question. Those steps, some addressed earlier in the paper, include ensuring that the proposed research makes a significant difference, advances the field of study and current body of knowledge, is based in and supported by the literature, and is a manageable size worthy of the time and effort involved. All statements can be expressed and should describe the statement of the problem using only one or two grammatically correct and purposefully written complete sentences (Leedy & Ormrod, 2010, p. 48, para. 5). Everything else in the study should support this brief and concise statement, so the focus of the research stays clear and concise.

The Problem Statement

The problem statement is often a paragraph, laid out in several well-developed and focused sentences (Ellis & Levy, 2008), located at the beginning of a research study that ambitiously drives its anticipated success (Leedy & Ormrod, 2010). Developing the problem statement has many of the same characteristics as does establishing the initial researchable problem. Problem statements are often found within the first part of a research study and serves as a crucial and foundational role for all research (Jacobs, 2013). According to Leedy and Ormrod (2010) “you can state your problem clearly only when you also state it completely.” Jacobs (2013) suggests that problem statements represent a system of arguments recognized as being true to a sense. This information is often derived from the literature and from the views of highly respected individuals in the scientific community.

Developing the Problem Statement. Leedy and Ormrod (2010) stated that a problem statement isn’t completely clear until it has been completely stated; this means that there are many questions, which must be asked and answered while developing the problem statement. McGee (2012), along with Leedy and Ormrod (2010), share several overlapping characteristics

or steps, which define and help guide the development of a good sound problem statement. A few of these steps include stating the problem clearly and precisely, thinking through the implications of the study, and stating the problem in a way that reflects an open mind about the possible results. Constructing a problem statement is a formative process and serves an important function in helping to sharpen the course and direction of the study (Jacobs, 2013). While establishing a reliable problem statement, consistently reflect on the reviewed literature, edit and refine the purpose of the statement, and **utilize** vocabulary and grammar that will enhance the clarity of statement (Leedy & Ormrod, 2010, pg. 51). In addition to the characteristics or steps, which define and help guide the development of the problem statement Ellis and Levy (2008) add that the problem statement should also address six questions: what, how, where, when, why, and who.

Finally the problem statement should conclude with an overarching statement that supports how the gap in the existing research will be decreased by the proposed study. This is what Jacobs (2013) refers to as the explicative statement, which he explains “serves to complete the cycle of logic that the researcher has generated” (p. 110).

Components of a Research Problem

As mentioned earlier in the paper many of the characteristics which make up a sound research problem can be observed overlapping in many areas of the research process. These characteristics or steps are found in identifying the research problem to conducting a worthy study. A clearly written problem statement should be between 250 and 300 words long, clearly state the general problem, and articulate the proposed problem while also providing a rationale for why the research is scientifically worthy (Leedy & Ormrod, 2010). Within a clearly written

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Comment [1]: Google “use versus utilize” – it may be okay to use it here but do not overuse it

Surprisingly, “utilize,” a 19th-century loanword from French, does have very specific and valid uses, mostly in the scientific world. The word “utilize” often appears “in contexts in which a strategy is put to practical advantage or a chemical or nutrient is being taken up and used effectively.” For example, according to the *American Heritage Guide to Contemporary Usage and Style*, you might hear “utilize” properly used in a sentence such as “If a diet contains too much phosphorus, calcium is not utilized efficiently.” So if you’re a science writer, you might find yourself using the word “utilize.” If you’re just a regular person writing a regular sentence, you should probably just stick with the word “use.” <http://grammar.quickanddirtytips.com/use-versus-utilize.aspx>

problem statement there are ways that the research can be broken down into manageable chunks also known as subproblems.

Subproblems. The subparts of the main problem or question are called subproblems. Appropriate analysis of the intended research and problem can be better scrutinized by breaking down the bigger question into its smaller pieces. According to Leedy and Ormrod (2010) there are characteristics of subproblems that must be addressed before the main problem can be clearly analyzed. First each subproblem must be clearly defined as a valid subproblem and not a subproblem that merely acts like a problem. Each subproblem should be completely separate researchable pieces of the main problem; each having its own information and data points. Finally, each piece should clearly be tied to the main problem with the number of subproblems at a minimum. By systematically analyzing the subproblems the main research problem can thoroughly be answered through this process (pp. 52-54).

Theoretical Framework

Research problems serve as the starting point for helping to identify an important question, a review of the literature related to the field serves as the foundation upon which that research is built (Ellis & Levy, 2008). A review of the literature helps to identify a gap in existing theory, determine if the proposed research can be replicated or expanded upon, and can help distinguish between non-worthy research problems. The scientific community demand that a research study be of high quality and value, this requires a solid conceptual foundation and “an exhaustive understanding of the body of knowledge related to the field or topic of study” (p. 24).

Research is based on the statement of the problem, which consists of subproblems that outline the research problem or question (Leedy & Ormrod, 2010). The statement of the problem and its problem statement paragraph is based on logically sequenced arguments, which

helps to establish the theoretical framework of the study. Each argument supported by the literature, the data, the assumptions, and an understanding of the importance of the study, together, help the reader to accept the interpretation of the data and its conclusions (p. 54-59).

Conclusion

In this paper characteristics of a research problem were discussed, detailing the steps that help identify a worthy researchable problem. Also discussed were the characteristics and steps to creating a clear and concise statement of the problem within an outline of the problem statement. A problem statement is defined as a short paragraph that identifies a problem and its worthiness to be studied. The problem statement should be clearly stated and describe in detail the proposed advancements the researcher intends to make to the existing body of knowledge and related field. The problem statement serves to complete the cycle of thinking that the researcher has generated. The research process serves to facilitate that cycle of thinking taking the researcher through a process of questions, assumptions, and data collection and analysis connected to the main problem. Identifying a problem and developing a clear and concise problem statement is the most difficult part of the research process. However, utilizing the characteristics and steps outlined in this paper, which includes identifying a gap in the existing research, an extensive review of the literature, and ongoing discourse with academic professionals about a proposed problem or question will serve to make the process easier.

References

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